

THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Previously Presented) A method for recording graphic data and subtitle data on a recording medium, comprising:

receiving video data and additional data including at least one of graphic data and subtitle data; and

recording the additional data on the recording medium by dividing and organizing the additional data such that the additional data is included in a plurality of distinct regions that do not overlap with each other;

wherein the additional data is included in a plurality of sub-planes based on a type of the additional data, each of the sub-planes including at least one of the distinct regions, and

wherein each of the distinct regions of each of the sub-planes includes an object so that the additional data of each of the regions of each of the sub-planes are configured to be overlaid in the video image.

2. (Previously Presented) The method set forth in claim 1, wherein the graphic data and subtitle data are organized into distinct sub-planes.

3. (Previously Presented) The method set forth in claim 1, wherein the video data is included in a main plane.

4. (Previously Presented) The method set forth in claim 1, wherein each of the plurality of sub-planes includes at least one object.

5. (Previously Presented) The method set forth in claim 1, wherein the object is at least one of text, an icon, an image, and a background box.

6. (Previously Presented) A method for recording graphic data and subtitle data on a recording medium, comprising:

receiving video data and additional data including at least one of graphic data and subtitle data; and

recording the additional data as a plurality of individual, parallel streams on the recording medium such that two types of additional data included in a same region are respectively recorded in two separate parallel streams, and two types of additional data included in different regions in a same plane are recorded in a same stream in serial.

7. (Original) The method set forth in claim 6, wherein the number of the plurality of streams is the same as the number of graphic decoders contained in a reproducing apparatus.

8. (Previously Presented) The method set forth in claim 6, wherein parts of the additional data that are simultaneously decoded are placed in distinct streams.

9. (Previously Presented) A computer readable medium encoded with a data structure, comprising:

video data and additional data including at least one of graphic data and subtitle data,

wherein the additional data is divided and organized such that the additional data is included in a plurality of distinct regions that are configured not to overlap with each other,

wherein the additional data is configured to be included in a plurality of sub-planes based on a type of the additional data, each of the sub-planes including at least one of the distinct regions, and

wherein each of the distinct regions of each of the sub-planes is configured to have its own object so that the additional data of each of the regions of each of the sub-planes are configured to be overlaid in the video image, and the computer readable medium is configured to have an information area storing information files for managing reproduction of the video data and the additional data.

10. (Previously Presented) The computer readable medium set forth in claim 9, wherein the graphic data and subtitle data are organized into distinct regions.

11. (Previously Presented) A computer readable medium encoded with a data structure, comprising:

video data and additional data including at least one of graphic data and subtitle data,

wherein the additional data is recorded such that two types of additional data included in a same region are respectively recorded in two separate parallel streams, and two types of additional data included in different regions in a same plane are recorded in a same stream in serial, and the computer readable medium is configured to have an information area storing information files for managing reproduction of the video data and the additional data.

12. (Previously Presented) The computer readable medium set forth in claim 11, wherein parts of the additional data are simultaneously decoded are placed in distinct streams.

13. (Previously Presented) An apparatus for recording graphic data and subtitle data on a recording medium, comprising:

a receiver configured to receive video data and additional data including at least one of graphic data and subtitle data;

a control circuit configured to divide and organize the additional data such that the additional data is included in a plurality of distinct regions that do not overlap with each other; and

a recorder configured to record the additional data and the video data on the recording medium,

wherein the additional data is included in a plurality of sub-planes based on a type of the additional data, each of the sub-planes including at least one of the distinct regions, and

wherein each of the regions of each of the sub-planes includes an object so that the additional data of each of the regions of each of the sub-planes are configured to be overlaid in the video image.

14. (Previously Presented) The apparatus set forth in claim 13, wherein the control circuit is configured to place the graphic data and subtitle data in distinct sub-planes.

15. (Previously Presented) An apparatus for recording graphic data and subtitle data on a recording medium, comprising:

a receiver configured to receive video data and additional data including at least one of graphic data and subtitle data;

a control circuit configured to organize the additional data such that two types of additional data included in a same region are respectively recorded in two separate parallel streams, and two types of additional data included in different regions in a same plane are recorded in a same stream in serial; and

a recorder configured to record the additional data and the video data on the recording medium.

16. (Previously Presented) The apparatus set forth in claim 15, wherein the number of streams organized by the control circuit is configured to have the same as the number of graphic decoders included in the apparatus.

17. (Previously Presented) The apparatus set forth in claim 15, wherein the control circuit is configured to place parts of the additional data that should be simultaneously decoded in distinct streams.

18. (Previously Presented) A method for reproducing a recording medium, comprising:

reproducing video data and additional data including at least one of graphic data and subtitle data recorded on the recording medium, the additional data divided and organized into a plurality of sub-planes based on positions where the additional data is to be displayed, each of the sub-planes divided into a plurality of distinct regions that do not overlap with each other;

decoding the reproduced video data to construct a main plane and decoding the additional data to construct the plurality of sub-planes including the presentation

regions; and

constructing a video image by mixing the main plane with the plurality of sub-planes and outputting the constructed video image so that the additional data in each of the regions of each of the sub-planes is configured to be overlaid in the video image.

19. (Previously Presented) The method set forth in claim 18, wherein the plurality of sub-planes include a subtitle plane and a graphic plane.

20. (Original) The method set forth in claim 19, wherein the subtitle plane includes decoded graphic data as well as decoded subtitle data.

21. (Previously Presented) An apparatus for reproducing a recording medium, comprising:

a reproducer configured to reproduce video data and additional data including at least one of graphic data and subtitle data recorded on the recording medium, the additional data divided and organized into a plurality of sub-planes based on positions where the additional data is to be displayed, each of the sub-planes is divided into a plurality of distinct regions that do not overlap with each other;

a decoder configured to decode the reproduced video data to construct a main plane and to decode the additional data to construct the plurality of sub-planes including the presentation regions; and

a constructor configured to construct a video image by mixing the main plane with the plurality of sub-planes and to output the constructed video image so that the additional data in each of the regions of each of the sub-planes is configured to be overlaid in the video image.

22. (Previously Presented) The apparatus set forth in claim 21, wherein the decoder is configured to organize the additional data into a subtitle plane and a graphic plane.

23. (Previously Presented) The apparatus set forth in claim 22, wherein the decoder is configured to organize the subtitle plane such that the subtitle plane includes decoded graphic data as well as decoded subtitle data.

24. (Previously Presented) The method set forth in claim 1, wherein the graphic data and the subtitle data are decoded by different decoders.

25. (Previously Presented) The computer readable medium set forth in claim 9, wherein the graphic data and the subtitle data are decoded by different decoders.